

AMENDMENT TO CLAIMS

Please amend claims 1, 10, 29, 30, 43, 44, 57, and 58, add claims 59 and 60, all as shown below. All pending claims are reproduced below, including those that remain unchanged.

1. (Currently amended) A system to provide conversation states, comprising:
 - a first computing device capable of accepting a message during a conversation between the first computing device and a conversation partner;
 - a second computing device capable of:
 - maintaining a state requested by the message; and
 - storing information of the state in non-persistent memory; and
 - a conversation manager capable of:
 - identifying the location of the second computing device which maintains the state requested by the message; and
 - providing the location and/or the information of the state to the first computing device.
2. (Previously presented) The system according to claim 1, wherein:
 - the first and second computing devices form a cluster.
3. (Original) The system according to claim 1, wherein:
 - the conversation manager is capable of maintaining the locations of all states in the system.
4. (Previously presented) The system according to claim 1, wherein:
 - the information may include, a map of every state leased, owned, or stored on the second computing device.
5. (Previously presented) The system according to claim 1, wherein:
 - the first and second computing devices can be the same computing device.

6. (Previously presented) The system according to claim 1, wherein:
the second computing device is capable of maintaining the information both in-memory and on persistent storage.
7. (Previously presented) The system according to claim 1, wherein:
the conversation manager is capable of designating the second computing device as the primary and replicating the information on the second computing device to a third computing device.
8. (Previously presented) The system according to claim 7, wherein:
the conversation manager is capable of routing to the third computing device and setting it as the new primary when the second computing device fails.
9. (Previously presented) The system according to claim 1, wherein:
the conversation manager is capable of periodically determining the availability of the second and third computing devices.
10. (Currently amended) A system to provide conversation for Web service, comprising:
a conversation partner capable of providing a message during a conversation between the conversation partner and a first computing device;
said first computing device capable of accepting a message during the conversation with the conversation partner;
a second computing device capable of:
maintaining a state requested by the message; and
storing information of the state in non-persistent memory; and
a conversation manager capable of:
identifying the location of the second computing device which maintains the state requested by the message; and

providing the location and/or the information of the state to the first computing device.

11. (Original) The system according to claim 10, wherein:
the message includes a conversation ID.

12. (Canceled).

13. (Canceled).

14. (Canceled).

15. (Canceled).

16. (Canceled).

17. (Canceled).

18. (Canceled).

19. (Canceled).

20. (Previously presented) The system according to claim 11, wherein:

the first computing device is capable of contacting the conversation manager to determine the location of the state requested by the message using the conversation ID.

21. (Previously presented) The system according to claim 10, wherein:

the first computing device is capable of answering a request for the state directly without contacting the conversation manager if it owns such state.

22. (Previously presented) The system according to claim 10, wherein:
the conversation manager is capable of accepting a request for the location of the state from the first computing device.
23. (Previously presented) The system according to claim 11, wherein:
the conversation manager is capable of providing the location and/or the information of the state to the first computing device requesting it based on the conversation ID.
24. (Previously presented) The system according to claim 10, wherein:
the first computing device is capable of accepting the location of the state from the conversation manager.
25. (Previously presented) The system according to claim 10, wherein:
the first computing device is capable of invoking the state on the second computing device in order to respond to the conversation message received.
26. (Previously presented) The system according to claim 10, wherein:
the conversation manager is capable of sharing the state with at least two conversations.
27. (Previously presented) The system according to claim 10, wherein:
the conversation manager is capable of tracking a participating Web service that initiates the conversation.
28. (Previously presented) The system according to claim 27, wherein:
the conversation manager is capable of sharing the state with at least two Web services and joining the sessions of these services.

29. (Currently amended) A method to provide a conversation for a Web service, comprising:

- maintaining a state on a computing device;
- storing information of the state in non-persistent memory on the computing device;
- accepting a message requesting the state during a conversation with a conversation partner;
- contacting a conversation manager to determine the location of the state requested by the message;
- accepting the location and/or the information of the state from the conversation manager; and
- invoking the state on the computing device in order to respond to the conversation message.

30. (Currently amended) A method to provide a conversation for a Web service, comprising:

- maintaining a state on a computing device;
- storing information of the state in non-persistent memory on the computing device;
- accepting a message requesting the state during a conversation with a conversation partner; and
- invoking the state on the computing device in order to respond to the conversation message received directly at the computing device without contacting a conversation manager.

31. (Original) The method according to claim 29, further comprising:

- maintaining the locations of all states in the system on the conversation manager.

32. (Previously presented) The method according to claim 29, further comprising:

- maintaining on a the computing device its state information, which may include, ,
a map of every state leased, owned, or stored on it.

33. (Canceled).

34. (Previously presented) The method according to claim 32, further comprising:
maintaining the state information on the computing device both in-memory and
on persistent storage.

35. (Previously presented) The method according to claim 32, further comprising:
designating the computing device as the primary and replicating the state
information on the computing device to another computing device.

36. (Previously presented) The method according to claim 35, further comprising:
routing to the another computing device; and
setting it as the new primary when the current primary computing device fails.

37. (Previously presented) The method according to claim 29, further comprising:
determining the availability of the computing devices periodically.

38. (Canceled).

39. (Previously presented) The method according to claim 29, further comprising:
accepting request for the location of the state from a computing device; and
providing the location of the state to the computing device requesting it.

40. (Previously presented) The method according to claim 29, further comprising:
sharing the state with at least two conversations.

41. (Previously presented) The method according to claim 29, further comprising:
tracking a participating Web service that initiates the conversation.

42. (Previously presented) The method according to claim 41, further comprising:

sharing the state with at least two Web services; and
joining the sessions of these services.

43. (Currently amended) A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:

maintain a state on a computing device;
store the information of the state in non-persistent memory on the computing device;
accept a message requesting the state during a conversation with a conversation partner;
contact a conversation manager to determine the location of the state requested by the message;
accept the location and/or the information of the state from the conversation manager; and
invoke the state on the computing device in order to respond to the conversation message.

44. (Currently amended) A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:

maintain a state on a computing device;
store information of the state in non-persistent memory on the computing device;
accept a message requesting the state during a conversation with a conversation partner; and
invoke the state on the computing device in order to respond to the conversation message received directly at the computing device without contacting a conversation manager.

45. (Original) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

maintain the locations of all states in the system on the conversation manager.

46. (Previously presented) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

maintain on the computing device information, which may include, a map of every state leased, owned, or stored on it.

47. (Canceled).

48. (Previously presented) The machine readable medium of claim 46, further comprising instructions that when executed cause the system to:

maintain the state information on the computing device both in-memory and on persistent storage.

49. (Previously presented) The machine readable medium of claim 48, further comprising instructions that when executed cause the system to:

designating the computing device as the primary and replicating the state information on the computing device to another computing device.

50. (Previously presented) The machine readable medium of claim 49, further comprising instructions that when executed cause the system to:

route to the another computing device; and
set it as the new primary when the current primary computing device fails.

51. (Previously presented) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

check for the availability of the computing devices periodically.

52. (Canceled).

53. (Previously presented) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

accept request for the location of the state from a computing device; and
provide the location of the state to the computing device requesting it.

54. (Previously presented) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

share the state with at least two conversations.

55. (Previously presented) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

track a participating Web service that initiates the conversation.

56. (Previously presented) The machine readable medium of claim 55, further comprising instructions that when executed cause the system to:

share the state with at least two Web services; and
join the sessions of these services.

57. (Currently amended) A system for handling conversation, comprising:

means for maintaining a state on a computing device;
means for storing information of the state in non-persistent memory on the computing device;
means for accepting a message requesting the state during a conversation with a conversation partner;
means for contacting a conversation manager to determine the location of the state requested by the message;
means for accepting the location and/or the information of the state from the conversation manager; and
means for invoking the state on the computing device in order to respond to the conversation message.

58. (Currently amended) A computer data signal embodied in a transmission medium, comprising:

- a code segment including instructions to maintain a state on a computing device;
- a code segment including instructions to store information of the state in non-persistent memory on the computing device;
- a code segment including instructions to accept a message requesting the state during a conversation with a conversation partner;
- a code segment including instructions to contact a conversation manager to determine the location of the state requested by the message;
- a code segment including instructions to accept the location and/or the information of the state from the conversation manager; and
- a code segment including instructions to invoke the state on the computing device in order to respond to the conversation message.

59. (New) The system according to claim 1, wherein:

- the conversation can be within the context of a business application.

60. (New) The system according to claim 1, wherein:

- the state can be one of: a program, an application, a service, and a database instance.